

$$F_G = G \frac{m_1 m_2}{d^2}$$

↑
GRAVITATIONAL
CONSTANT

$$6.67 \times 10^{-11} \frac{\text{N m}^2}{\text{kg}^2}$$

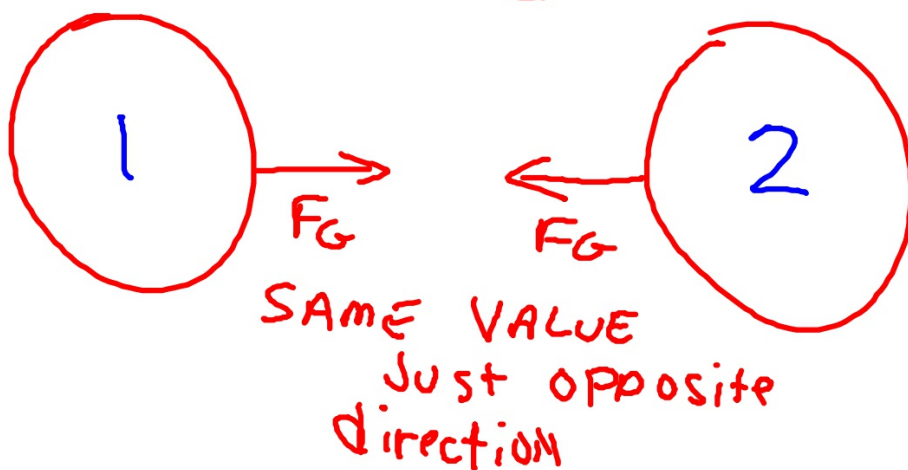
m_1 and m_2 MASS of two
objects

d is the distance between
the objects

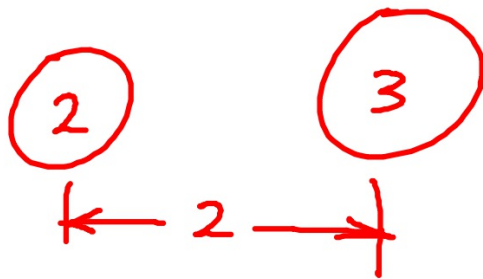
UNIT perspective

$$F_G = \frac{N \cancel{m^2}}{\cancel{kg^2}} \frac{(\cancel{kg})(kg)}{\cancel{m^2}}$$

\uparrow \uparrow
 G $\frac{m_1 m_2}{d^2}$



$$F_g \propto \frac{m_1 m_2}{d^2}$$



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$$\frac{2 \times 3}{2^2} = \frac{6}{4}$$

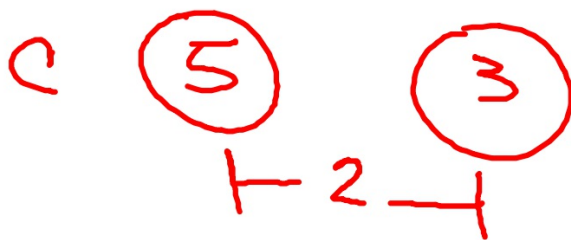
$$1.5 \text{ N}$$



$$\frac{1 \times 3}{1^2} = \frac{3}{1} = 3N$$

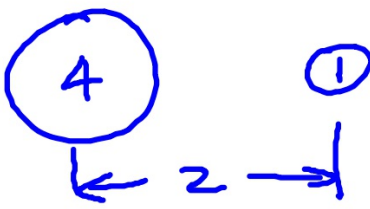


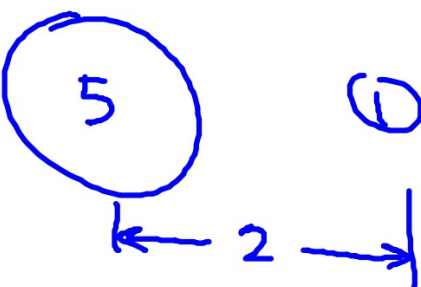
$$\frac{3 \times 3}{2^2} = \frac{9}{4} = 2.25N$$

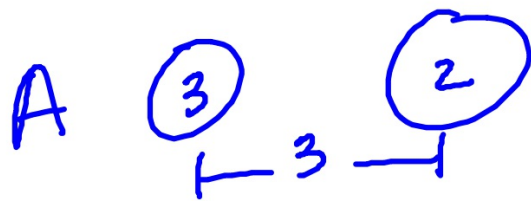


$$\frac{5 \times 3}{2^2} = \frac{15}{4} = 3.75N$$

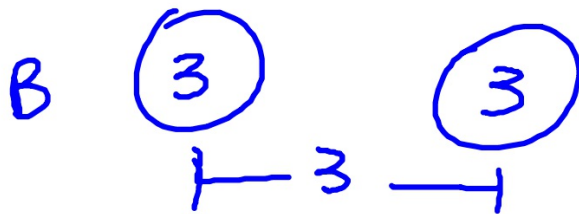
A  $\frac{1 \cdot 3}{2^2} = \frac{3}{4} = .75N$

B  $\frac{4 \times 1}{2^2} = \frac{4}{4} = 1N$

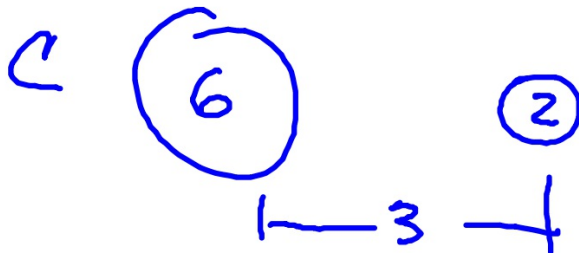
C  $\frac{5 \times 1}{2^2} = \frac{5}{4} = 1.25N$



$$\frac{3 \times 2}{3^2} = \frac{6}{9} = 0.67_N$$



$$\frac{3 \times 3}{3^2} = \frac{9}{9} = 1_N$$



$$\frac{6 \times 2}{3^2} = \frac{12}{9} = 1.33$$